



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/568,370

02/14/2006

Gert Wim 'T Hooft

NL 031024

7600

24737

7590

04/04/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

04/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,370	Applicant(s) 'T HOOFT ET AL.	
	Examiner KIM CHU	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Pre-Amendment filed on 2/14/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2627

Claim Objections

1. Claims 6 and 7 are objected to because of the following informality:

(a) in claim 6, line 4, the terms "the liquid crystal molecules" is not claimed in Claim 1. Applicant should change the dependence of Claim 6 to Claim 1; and

(b) in claim 7, line 4, the terms "the liquid crystal molecules" is not claimed in Claim 1. Applicant should change the dependence of Claim 6 to Claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

3. Claims 1 and 8-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Dil et al. (U.S. Patent 4,325,135).

Dil teaches an optical recording carrier having all of the elements and means as recited in Claims 1 and 8-12. For example, Dil teaches the following:

Art Unit: 2627

(a) with respect to Claim 1, the optical record carrier 1 having at least one information layer (Fig. 9; there are two layers 31 and 31'), wherein information is encoded in an information structure comprising information areas 4 (Fig. 10), which alternate with intermediate areas 4', characterized in that the information layer is provided with a polarization-sensitive diffraction grating 4, 4' comprising a grating layer (Fig. 10; the middle layer between two recording layers 31 and 31'), which is divided in grating strips of a first type 4 alternating with intermediate strips 3 of a second type (Fig. 10), at least one of the types comprising a birefringent material, and in that the refractive indices of the grating strips 4 and intermediate strips 3 are different for radiation polarized in a direction parallel to the grating plane and perpendicular to the grating strips (Figs. 9 and 10; strip 4 and

(b) with respect to Claim 8, the birefringent grating 3 is a transmission grating (Fig. 10; light transmits through 3 and reach next layer 4).

(c) with respect to Claim 9, the birefringent grating 4 is a reflective grating (Fig. 10; grating 4 is made of silver).

(d) with respect to Claim 10, that first information tracks comprising information areas showing higher spatial frequencies alternate with second information tracks comprising

Art Unit: 2627

information areas showing lower spatial frequencies (Fig. 9; storage capacity is different in tracks 3 and 4).

(e) with respect to Claim 11, a device comprises a radiation source unit 10 for supplying read beam radiation, an objective system for focusing the read beam radiation in the information layer and a detection branch 19 (Fig. 11) comprising a radiation-sensitive detection system for converting read beam radiation the record carrier into an electrical signal, characterized in that the radiation source unit supplies read beam radiation having two mutually perpendicular polarization components (Fig. 11; after the wave-plate 33; column 18, lines 45-61), in that the detection branch comprises a polarization-sensitive beam splitter and in that the radiation-sensitive detection system comprises a separate detector for each of the two polarization components from the beam splitter (Fig. 11).

(f) with respect to Claim 12, the radiation components 10 and 33 constitute two spatially separated read beams and in that the objective system focuses these beams in two spots in the information layer of the record carrier 1 to be read, whereby the distance between the spots in the direction perpendicular to the information track direction is substantially equal to the distance between the information tracks (Figs. 9-11).

Allowable Subject Matter

4. Claims 2-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 2, the prior art of record fails to teach or fairly suggest an optical record carrier following feature:

(a) the birefringent material is a liquid crystal.

As in claims 4, the prior art of record fails to teach or fairly suggest an optical record carrier following feature:

(a) the birefringent material is a polymeric material comprising polymerized aligned liquid crystalline monomers.

As in claims 5, the prior art of record fails to teach or fairly suggest an optical record carrier following feature:

(a) the grating strips comprise an anisotropic material having at least two refractive indices and the intermediate strips comprise isotropic material and in that one the refractive indices of the anisotropic material is substantially equal to the refractive index of the isotropic material.

Art Unit: 2627

As in claims 6, the prior art of record fails to teach or fairly suggest an optical record carrier following feature:

(a) the grating strips differ from the intermediate strips in that the degree of alignment of the liquid crystal molecules in the grating strips is substantially different from that degree in the intermediate strips.

As in claims 7, the prior art of record fails to teach or fairly suggest an optical record carrier following feature:

(a) the grating strips differ from the intermediate strips in that the direction of alignment of the liquid crystal molecules in the grating strips is different from that direction in the intermediate strips.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

Related Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tahara et al. (5856048) is pertinent because Tahara teaches an optical disc having a hologram layer.

Art Unit: 2627

7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/

Examiner AU2627

March 28, 2008
(571) 272-7585

/HOA T NGUYEN/

Supervisory Patent Examiner, Art Unit 2627

Application/Control Number: 10/568,370

Page 8

Art Unit: 2627